

REMARKS

Applicants have amended the specification on page 73, line 23 to page 75, line 3 to correct an inadvertent typographical error in reciting the compound delavirdine. One of ordinary skill in the art would readily recognize that the non-nucleoside reverse transcriptase inhibitor delavuridine should have been delavirdine.

Applicants have amended claims 1-3 and 28 in response to the Examiner's rejections and objections. Specifically, applicants have amended claims 1, 2 and 3 to delete the definitions of "Ht'" and "Q'". Support for these amendments is found in claim 1 as originally filed. Additionally, applicants have amended claim 1 to more particularly define the present invention. Support for the amendment is found in page 68, line 28 to page 69, line 5.

Applicants have also amended claim 28 to recite the chemical names of acyclovir, valaciclovir, famciclovir, ganciclovir, penciclovir, indinavir, ritonavir, nelfinavir, nevirapine, zalcitabine and delavirdine. Similarly, applicants have incorporated the same amendments in claims 25 and 27.

Applicants have also amended claims 25 and 27-28 to improve their form and to correct an inadvertent

typographical error in reciting the compound delavirdine. One of ordinary skill in the art would readily recognize that the non-nucleoside reverse transcriptase inhibitor delavuridine should have been delavirdine.

None of the above amendments adds any new subject matter.

Applicants address the Examiner's rejections and objections individually below.

THE NEW MATTER REJECTION

The Examiner has rejected claim 1 because it allegedly recites new matter. Specifically, the Examiner states that there is insufficient antecedent basis in the specification for the limitation "Ht'" in the definition of R⁸ in claim 1. Applicants traverse.

To expedite prosecution, however, applicants have amended claim 1 by deleting the definition of "Ht'" and replacing each occurrence of "Ht'" with "Ht". Consistent with this amendment, applicants have also deleted the definition of "Q'".

Accordingly, applicants request that the Examiner withdraw this rejection.

THE REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH:

The Examiner has rejected claim 28 under 35 U.S.C. § 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Examiner contends that the scope of claim 28 is uncertain because it contains trademarks/trade names, such as "ACYCLOVIR" and "VALACICLOVIR". Applicants traverse.

Contrary to the Examiner's assertions, "acyclovir" and "valaciclovir" are not trademarks or trade names. Applicants respectfully submit that "acyclovir" and "valaciclovir" and the like are generic names. However, to expedite prosecution, applicants have adopted the Examiner's suggestion and amended claim 28 accordingly to incorporate the chemical names of acyclovir, valaciclovir, famciclovir, ganciclovir, penciclovir, indinavir, ritonavir, nelfinavir, nevirapine, loviride and delavirdine. Accordingly, applicants request that the Examiner withdraw this rejection.

THE OBJECTIONS

The Examiner has objected to claims 2-5, 7-15, 18-22 as being dependent upon a rejected base claim.

As discussed above, applicants have amended claim 1 to overcome the Examiner's rejection. Thus, the Examiner's objections to claims 2-5, 7-15, and 18-22 have been obviated.

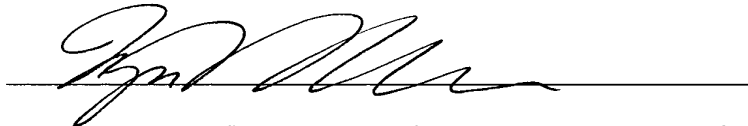
CLAIMS 23-27

If the Examiner finds amended claims 1-22 and 28 allowable, applicants request that claims 23-27, which include all the limitations of product claim 1, be rejoined. MPEP 821.04.

CONCLUSION

In view of the foregoing remarks, applicants request that the Examiner favorably reconsider this application and allow the claims pending herein. If the Examiner believes that a telephone conference would expedite allowance of this application, she is invited to telephone the undersigned at any time.

Respectfully submitted,



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APPENDIX OF AMENDMENTS

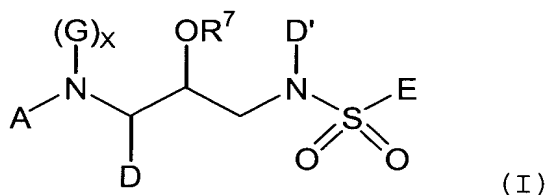
IN THE SPECIFICATION

Examples of such further therapeutic agents include agents that are effective for the treatment of viral infections or associated conditions such as (1 alpha, 2 beta, 3 alpha)-9-[2,3-bis(hydroxymethyl)cyclobutyl]guanine [(-)BHCG, SQ-34514], oxetanocin-G (3,4-bis-(hydroxymethyl)-2-oxetanosyl]guanine), acyclic nucleosides (e.g. acyclovir, valaciclovir, famciclovir, ganciclovir, penciclovir), acyclic nucleoside phosphonates (e.g. (S)-1-(3-hydroxy-2-phosphonyl-methoxypropyl)cytosine (HPMPC) and PMEA analogs thereof, ribonucleotide reductase inhibitors such as 2-acetylpyridine 5-[(2-chloroanilino)thiocarbonyl]thiocarbonohydrazone, 3'-azido-3'-deoxythymidine, other 2',3'-dideoxynucleosides such as 2',3'-dideoxycytidine, 2',3'-dideoxyadenosine, 2',3'-dideoxyinosine, 2',3'-didehydrothymidine, protease inhibitors such as indinavir, ritonavir, nelfinavir, [3S-[3R*(1R*, 2S*)]]-[3[[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-tetrahydro-3-furanyl ester (141W94), oxathiolane nucleoside analogues such as (-)-cis-1-(2-hydroxymethyl)-1,3-oxathiolane 5-yl)-cytosine (lamivudine) or cis-1-(2-(hydroxymethyl)-1,3-oxathiolan-5-yl)-5-fluorocytosine (FTC), 3'-deoxy-3'-fluorothymidine, 5-chloro-2',3'-dideoxy-3'-fluorouridine, (-)-cis-4-[2-amino-6-(cyclopropylamino)-9H-purin-9-yl]-2-cyclopentene-1-methanol, ribavirin, 9-[4-hydroxy-2-(hydroxymethyl)but-1-yl]-guanine (H2G), tat inhibitors such as 7-chloro-5-(2-pyrrolyl)-3H-1,4-benzodiazepin-2-(H)one (Ro5-3335), 7-chloro-1,3-dihydro-5-(1H-pyrrol-2yl)-3H-1,4-benzodiazepin-2-amine (Ro24-7429), interferons such as α -interferon, renal excretion inhibitors such as probenecid, nucleoside transport

inhibitors such as dipyridamole; pentoxifylline, N-acetylcysteine (NAC), Procysteine, α -trichosanthin, phosphonoformic acid, as well as immunomodulators such as interleukin II or thymosin, granulocyte macrophage colony stimulating factors, erythropoetin, soluble CD₄ and genetically engineered derivatives thereof, or non-nucleoside reverse transcriptase inhibitors (NNRTIs) such as nevirapine (BI-RG-587), loviride (α -APA) and [delavuridine] delavirdine (BHAP), and phosphonoformic acid, and 1,4-dihydro-2H-3,1-benzoxazin-2-ones NNRTIs such as (-)-6-chloro-4-cyclopropylethynyl-4-trifluoromethyl-1,4-dihydro-2H-3,1-benzoxazin-2-one (L-743,726 or DMP-266), and quinoxaline NNRTIs such as isopropyl (2S)-7-fluoro-3,4-dihydro-2-ethyl-3-oxo-1(2H)-quinoxalinecarboxylate (HBY1293).

IN THE CLAIMS

1. (Thrice Amended) A compound of the formula (I):



[and] or a pharmaceutically acceptable [salts] salt thereof; wherein:

A is tetrahydrofurodihydrofuranyl-O-C(O)-, wherein tetrahydrofurodihydrofuranyl is optionally substituted with one or more substituents independently selected from oxo, -OR², SR², -R², -N(R²)(R²), -R²-OH, -CN, -CO₂R², -C(O)-N(R²)₂, -S(O)₂-N(R²)₂, -N(R²)-C(O)-R², -N(R²)-C(O)O-R², -C(O)-R², -S(O)_n-R², -OCF₃, -S(O)_n-Q, methylenedioxy, -N(R²)-S(O)₂(R²), halo, -CF₃, -NO₂, Q, -OQ, -OR⁷, -SR⁷, -R⁷, -N(R²)(R⁷) or -N(R⁷)₂;

each Ht is independently selected from C₃-C₇ cycloalkyl; C₅-C₇ cycloalkenyl; C₆-C₁₄ aryl; or a 5-7 membered saturated or unsaturated heterocycle, containing one or more heteroatoms selected from N, N(R²), O, S and S(O)_n; wherein said aryl or said heterocycle is optionally fused to Q; and wherein any member of said Ht is optionally substituted with one or more substituents independently selected from oxo, -OR², SR², -R², -N(R²)(R²), -R²-OH, -CN, -CO₂R², -C(O)-N(R²)₂, -S(O)₂-N(R²)₂, -N(R²)-C(O)-R², -N(R²)-C(O)O-R², -C(O)-R², -S(O)_n-R², -OCF₃, -S(O)_n-Q, methylenedioxy, -N(R²)-S(O)₂(R²), halo, -CF₃, -NO₂, Q, -OQ, -OR⁷, -SR⁷, -R⁷, -N(R²)(R⁷) or -N(R⁷)₂;

each R² is independently selected from H, or C₁-C₄ alkyl optionally substituted with a 3-7 membered saturated, partially saturated or unsaturated carbocyclic ring system; or a 5-7 membered saturated, partially saturated or unsaturated heterocyclic ring containing one or more heteroatoms selected from O, N, S, S(O)_n or N(R³³); wherein any of said ring systems or N(R³³) is optionally substituted with 1 to 4 substituents independently selected from -X'-Y', -O-arylalkyl, -S-arylalkyl, -N(Y')₂, -N(H)-arylalkyl, -N(C₁-C₄ alkyl)-arylalkyl, oxo, -O-(C₁-C₄ alkyl), OH, C₁-C₄ alkyl, -SO₂H, -SO₂-(C₁-C₄ alkyl), -SO₂-NH₂, -SO₂-NH(C₁-C₄ alkyl), -SO₂-N(C₁-C₄ alkyl)₂, -NH₂, -NH(C₁-C₄ alkyl), -N(C₁-C₄ alkyl)₂, -NH-C(O)H, -N(C₁-C₄ alkyl)-C(O)H, -NH-C(O)-C₁-C₄ alkyl, -C₁-C₄ alkyl-OH, -OH, -CN, -C(O)OH, -C(O)O-C₁-C₄ alkyl, -C(O)-NH₂, -C(O)-NH(C₁-C₄ alkyl), -C(O)-N(C₁-C₄ alkyl)₂, halo or -CF₃;

X' is -O-, -S-, -NH-, -NHC(O)-, -NHC(O)O-, -NHSO₂-, or -N-(C₁-C₄)alkyl-;

Y' is C₁-C₁₅ alkyl, C₂-C₁₅ alkenyl or alkynyl, wherein one to five carbon atoms in Y' are optionally substituted with C₃-C₇ cycloalkyl or C₅-C₆ cycloalkenyl,

C₆-C₁₄ aryl or a 5-7 membered saturated or unsaturated heterocycle, containing one or more heteroatoms selected from N, NH, O, S and S(O)_n;

each R³ is independently selected from H, Ht, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl or C₅-C₆ cycloalkenyl; wherein any member of said R³, except H, is optionally substituted with one or more substituents selected from -OR², -C(O)-N(R²)₂, -S(O)_n-N(R²)₂, -N(R²)₂, -N(R²)-C(O)O(R²), -N(R²)-C(O)N(R²)₂, -N(R²)-C(O)-R², Ht, -CN, -SR², -C(O)OR², or N(R²)-C(O)-R²;

each R³³ is selected from H, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl or C₅-C₆ cycloalkenyl, C₆-C₁₄ aryl or a 5-7 membered saturated or unsaturated heterocycle, containing one or more heteroatoms selected from N, NH, O, S and S(O)_n;

each n is independently 1 or 2;

G is selected from H or C₁-C₄ alkyl;

x in (G)_x is 1;

D is C₁-C₆ alkyl substituted with Q, wherein said alkyl is optionally substituted with one or more groups selected from C₃-C₆ cycloalkyl, -R³, -O-Q or Q;

each Q is independently selected from a 3-7 membered saturated, partially saturated or unsaturated carbocyclic ring system; wherein Q contains one substituent selected from -OR², -OR⁸, -O-arylalkyl, -SR⁸, -S-arylalkyl, -N(R²)R⁸, -N(R²)-arylalkyl and may be optionally substituted with one or more additional substituents independently selected from oxo, -OR⁸, -O-arylalkyl, -SR⁸, -S-arylalkyl, -N(R²)R⁸, -N(R²)-arylalkyl, -OR², -R², -SO₂R², -SO₂-N(R²)₂, -N(R²)₂, -N(R²)-C(O)-R², -OH, (C₁-C₄)-OH, -CN, -CO₂R², -C(O)-N(R²)₂, halo or -CF₃;

each R⁸ is independently selected from [Ht'] Ht, -C₁-C₁₅ branched or straight chain alkyl, alkenyl or alkynyl wherein one to five carbon atoms in said alkyl,

alkenyl or alkynyl are independently replaced by W, or wherein one to five carbon atoms in said alkyl, alkenyl or alkynyl are substituted with [Ht'] Ht; and wherein R⁸ is additionally and optionally substituted with one or more groups independently selected from -OH; -S(C₁-C₆ alkyl); -CN; -CF₃; -N(R²)₂; halo; -C₁-C₄-alkyl; -C₁-C₄-alkoxy; [-Ht'; -O-Ht'], -Ht; -O-Ht; -NR²-CO-N(R²)₂; -CO-N(R²)₂; -R¹-C₂-C₆ alkenyl, which is optionally substituted with one or more groups independently selected from hydroxy, C₁-C₄ alkoxy, [-Ht'; -O-Ht'] -Ht; -O-Ht, -NR²-CO-N(R²)₂ or -CO-N(R²)₂; or R⁷;

wherein W is -O-, -NR²-, -S-, -C(O)-, -C(S)-, -C(=NR²)-, -S(O)₂-, -NR²-S(O)₂-, -S(O)₂-NR²-, -NR²-C(O)O-, -O-C(O)NR²-, -NR²-C(O)NR²-, -NR²-C(S)NR²-, -CONR², -NR²C(O)-, -C(S)NR², -NR²C(S)-, -NR²-C(=N-CN)-NR²-, -NR²C(=N-CN)O- or -C(O)O-;

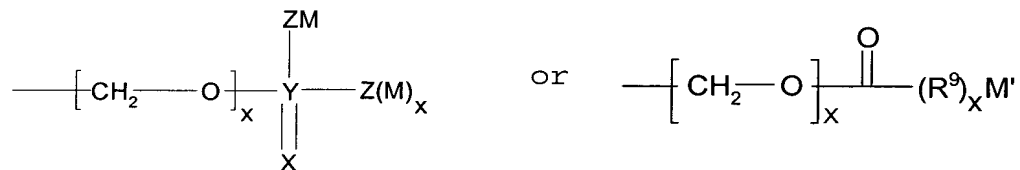
[each Ht' is independently selected from C₃-C₇ cycloalkyl; C₅-C₇ cycloalkenyl; C₆-C₁₄ aryl; 5-7 membered saturated or unsaturated heterocycle containing one or more heteroatoms selected from N, N(R²), O, S and S(O)_n; wherein said aryl or said heterocycle is optionally fused to Q'; and wherein any member of said Ht' is optionally substituted with one or more substituents independently selected from oxo, -OR², SR², -R², -N(R²)(R²), -R²-OH, -CN, -CO₂R², -C(O)-N(R²)₂, -S(O)₂-N(R²)₂, -N(R²)-C(O)-R², -N(R²)-C(O)O-R², -C(O)-R², -S(O)_n-R², -OCF₃, -S(O)_n-Q', methylenedioxy, -N(R²)-S(O)₂(R²), halo, -CF₃, -NO₂, Q', -OQ', -OR⁷, -SR⁷, -R⁷, -N(R²)(R⁷) or -N(R⁷)₂;

each Q' is independently selected from a 3-7 membered saturated, partially saturated or unsaturated carbocyclic ring system; or a 5-7 membered saturated, partially saturated or unsaturated heterocyclic ring containing one or more heteroatoms selected from O, N, S, S(O)_n or N(R²);]

D' is selected from C₁-C₁₅ alkyl, C₁-C₁₅ alkoxy, C₂-C₁₅ alkenyl, C₂-C₁₅ alkenyloxy, C₂-C₁₅ alkynyl, or C₂-C₁₅ alkynyloxy, wherein D' optionally comprises one or more substituents independently selected from Ht, oxo, halo, -CF₃, -OCF₃, -NO₂, azido, -SH, -SR³, -N(R³)-N(R³)₂, -O-N(R³)₂, -(R³)N-O-(R³), -N(R³)₂, -CN, -CO₂R³, -C(O)-N(R³)₂, -S(O)_n-N(R³)₂, -N(R³)-C(O)-R³, -N(R³)-C(O)-N(R³)₂, -C(O)-R³, -S(O)_n-R³, -N(R³)-S(O)_n(R³), -N(R³)-S(O)_n-N(R³)₂, -S-NR³-C(O)R³, -C(S)N(R³)₂, -C(S)R³, -NR³-C(O)OR³, -O-C(O)OR³, -O-C(O)N(R³)₂, -NR³-C(S)R³, =N-OH, =N-OR³, =N-N(R³)₂, =NR³, =NNR³C(O)N(R³)₂, =NNR³C(O)OR³, =NNR³S(O)_n-N(R³)₂, -NR³-C(S)OR³, -NR³-C(S)N(R³)₂, -NR³-C[=N(R³)]-N(R³)₂, -N(R³)-C[=N-NO₂]-N(R³)₂, -N(R³)-C[=N-NO₂]-OR³, -OC(O)R³, -OC(S)R³, -OC(O)N(R³)₂, -C(O)N(R³)-N(R³)₂, -N(R³)-N(R³)C(O)R³, -N(R³)-OC(O)R³, -N(R³)-OC(O)R³, -N(R³)-OC(S)N(R³)₂, -OC(S)N(R³)(R³), or -PO₃-R³;

E is benzothiazolyl optionally substituted with one or more substituents independently selected from oxo, -OR², SR², -R², -N(R²)(R²), -R²-OH, -CN, -CO₂R², -C(O)-N(R²)₂, -S(O)₂-N(R²)₂, -N(R²)-C(O)-R², -N(R²)-C(O)O-R², -C(O)-R², -S(O)_n-R², -OCF₃, -S(O)_n-Q, methylenedioxy, -N(R²)-S(O)₂(R²), halo, -CF₃, -NO₂, Q, -OQ, -OR⁷, -SR⁷, -R⁷, -N(R²)(R⁷) or -N(R⁷)₂;

each R⁷ is independently selected from hydrogen,



wherein each M is independently selected from H, Li, Na, K, Mg, Ca, Ba, -N(R²)₄, C₁-C₁₂-alkyl, C₂-C₁₂-alkenyl, or -R⁶; wherein 1 to 4 -CH₂ radicals of the alkyl or alkenyl group, other than the -CH₂ that is bound to Z, is optionally replaced by a heteroatom group selected from O, S, S(O), S(O₂), or N(R²); and wherein any

hydrogen in said alkyl, alkenyl or R^6 is optionally replaced with a substituent selected from oxo, $-C_1-C_4$ alkyl, $-N(R^2)_2$, $-N(R^2)_3$, $-OH$, $-O-(C_1-C_4 \text{ alkyl})$, $-CN$, $-C(O)OR^2$, $-C(O)-N(R^2)_2$, $S(O)_2-N(R^2)_2$, $-N(R^2)-C(O)-R_2$, $C(O)R^2$, $-S(O)_n-R^2$, $-OCF_3$, $-S(O)_n-R^6$, $-N(R^2)-S(O)_2(R^2)$, halo, $-CF_3$, or $-NO_2$;

M' is H, C_1-C_{12} -alkyl, C_2-C_{12} -alkenyl, or $-R^6$; wherein 1 to 4 $-CH_2$ radicals of the alkyl or alkenyl group is optionally replaced by a heteroatom group selected from O, S, $S(O)$, $S(O)_2$, or $N(R^2)$; and wherein any hydrogen in said alkyl, alkenyl or R^6 is optionally replaced with a substituent selected from oxo, $-OR^2$, $-C_1-C_4$ alkyl, $-N(R^2)_2$, $N(R^2)_3$, $-OH$, $-O-(C_1-C_4 \text{ alkyl})$, $-CN$, $-C(O)OR^2$, $-C(O)-N(R^2)_2$, $-S(O)_2-N(R^2)_2$, $-N(R^2)-C(O)-R_2$, $-C(O)R^2$, $-S(O)_n-R^2$, $-OCF_3$, $-S(O)_n-R^6$, $-N(R^2)-S(O)_2(R^2)$, halo, $-CF_3$, or $-NO_2$;

x , when associated with R^7 , is 0 or 1;

Z is O, S, $N(R^2)_2$, or, when M is not present, H;

Y is P or S;

X is O or S;

R^9 is $C(R^2)_2$, O or $N(R^2)$; wherein when Y is S, Z is not S; and

R^6 is a 5-6 membered saturated, partially saturated or unsaturated carbocyclic or heterocyclic ring system, or an 8-10 membered saturated, partially saturated or unsaturated bicyclic ring system; wherein any of said heterocyclic ring systems contains one or more heteroatoms selected from O, N, S, $S(O)_n$ or $N(R^2)$; and wherein any of said ring systems optionally contains 1 to 4 substituents independently selected from $-OH$, $-C_1-C_4$ alkyl, $-O-(C_1-C_4 \text{ alkyl})$ or $-O-C(O)-(C_1-C_4 \text{ alkyl})$.

2. (Amended) The compound according to claim 1, wherein R^8 is $-C_1-C_4$ -branched or straight chain alkyl, wherein one to two carbon atoms in said alkyl are independently replaced by W, wherein R^8 is additionally

and optionally substituted with one or more groups independently selected from -OH; -C₁-C₄-alkoxy; [-Ht'; -O-Ht'] -Ht; -O-Ht; -NR²-CO-N(R²)₂; -CO-N(R²)₂; -R¹-C₂-C₆ alkenyl, which is optionally substituted with one or more groups independently selected from hydroxy, C₁-C₄ alkoxy, [-Ht'; -O-Ht'] -Ht; -O-Ht, -NR²-CO-N(R²)₂ or -CO-N(R²)₂; or R⁷; and

wherein W is -O-, -NR²-, -NR²-S(O)₂-, -NR²-C(O)O-, -O-C(O)NR²-, -NR²-C(O)NR²-, -NR²-C(S)NR²-, -NR²C(O)-, -C(=NR²)-, -C(O)NR²-, -NR²-C(=N-CN)-NR²-, -NR²C(=N-CN)O- or -C(O)O-.

3. (Amended) The compound according to claim 1, wherein R⁸ is a -C₁-C₄-branched or straight alkyl chain, wherein one to two carbon atoms are substituted with [Ht'] Ht;

wherein [Ht'] Ht is C₆₋₁₄ aryl or a 5-7 membered saturated or unsaturated heterocycle, containing one or more heteroatoms selected from N, N(R²), O, S and S(O)_n, wherein any member of [Ht'] Ht is optionally substituted with one or more substituents independently selected from oxo, -OR², SR², -R², -N(R²)(R²), -R²-OH, -CN, -CO₂R², -C(O)-N(R²)₂, -S(O)₂-N(R²)₂, -N(R²)-C(O)-R², -N(R²)-C(O)O-R², -C(O)-R², -S(O)_n-R², -OCF₃, [-S(O)_n-Q'] -S(O)_n-Q, methylenedioxy, -N(R²)-S(O)₂(R²), halo, -CF₃, -NO₂, [Q', -OQ',] Q, -OQ, -OR⁷, -SR⁷, -R⁷, -N(R²)(R⁷) or -N(R⁷)₂.

25. (Amended) The method according to claim 23 or 24, comprising the additional step of administering to said patient an additional therapeutic agent selected from (1 alpha, 2 beta, 3 alpha)-9-[2,3-bis(hydroxymethyl)cyclobutyl]guanine [(-)BHCG, SQ-34514]; oxetanocin-G (3,4-bis-(hydroxymethyl)-2-oxetanosyl]guanine); acyclic nucleosides, [such as] acyclovir (9-[(2-hydroxyethoxy)methyl] guanine), valaciclovir (L-valine 2-

(guanine-9-ylmethoxy)ethyl ester), famciclovir (diacetyl-6-deoxy-9-(4-hydroxy-3-hydroxymethyl-but-1-yl)guanine), ganciclovir (9-[[2-hydroxy-1-(hydroxymethyl)ethoxymethyl] guanine), [or] penciclovir (9-(4-hydroxy-3-hydroxymethyl-but-1-yl) guanine); acyclic nucleoside phosphonates, [such as] (S)-1-(3-hydroxy-2-phosphonylmethoxypropyl)cytosine (HPMPC); ribonucleotide reductase inhibitors, [such as] 2-acetylpyridine 5-[(2-chloroanilino)thiocarbonyl] thiocarbonohydrazone, 3'-azido-3'-deoxythymidine; other 2',3'-dideoxynucleosides [such as] 2',3'-dideoxycytidine, 2',3'-dideoxyadenosine, 2',3'-dideoxyinosine, [or] 2',3'-didehydrothymidine; other aspartyl protease inhibitors, [such as] indinavir (4-hydroxy-N-(2-hydroxy-2,3-dihydro-1H-1-indanyl)-N'-(1,1-dimethylethyl)-2-phenylmethyl-5-[4-(3-pyridylmethyl)-1-piperzinyll]hexanediamide), ritonavir (2,4,7,12 -tetraazatridecan-13-oic acid, 10-hydroxy-2-methyl-5-(1-methylethyl)-1-[2-(1-methylethyl)-4-thiazolyl]-3,6-dioxo-8,11-bis(phenylmethyl)-, 5-thiazolylmethyl ester, [5S-(5R*,8R*10R*,11R*)], nelfinavir (3S-(3R*,4aR*,8aR*,2'S*,3'S*)) -2-[2'-hydroxy-3'-phenylthiomethyl-4'-aza-5'-oxo-5'-(2"-methyl-3"-hydroxyphenyl)-pentyl)-3-(N-(tert-butyl)-carboxy-amide)-decahydroisoquinoline-methanesulfonic acid), [or] [3S-[3R*(1R*, 2S*)]] - [3[[4-aminophenyl)sulfonyl] (2-methylpropyl)amino] -2-hydroxy-1-(phenylmethyl)propyl]-tetrahydro-3-furanyl ester (amprenavir); oxathiolane nucleoside analogues, [such as] (-)-cis-1-(2-hydroxymethyl)-1,3-oxathiolane 5-yl)-cytosine (lamivudine), [or] cis-1-(2-(hydroxymethyl)-1,3-oxathiolan-5-yl)-5-fluorocytosine (FTC); 3'-deoxy-3'-fluorothymidine; 5-chloro-2',3'-dideoxy-3'-fluorouridine; (-)-cis-4-[2-amino-6-(cyclopropylamino)-9H-purin-9-yl]-2-cyclopentene-1-methanol; ribavirin; 9-[4-hydroxy-2-(hydroxymethyl)but-1-yl]-guanine (H2G); tat inhibitors,

[such as] 7-chloro-5-(2-pyrryl)-3H-1,4-benzodiazepin-2-(H)one (Ro5-3335), [or] 7-chloro-1,3-dihydro-5-(1H-pyrrol-2-yl)-3H-1,4-benzodiazepin-2-amine (Ro24-7429); interferons, [such as] α -interferon; renal excretion inhibitors, [such as] probenecid; nucleoside transport inhibitors, [such as] dipyrindamole; pentoxifylline; N-acetylcysteine (NAC); Procysteine; α -trichosanthin; phosphonoformic acid; immunomodulators, [such as] interleukin II, [or] thymosin; granulocyte macrophage colony stimulating factors; erythropoetin; soluble CD₄ and genetically engineered derivatives thereof; non-nucleoside reverse transcriptase inhibitors (NNRTIs), [such as] nevirapine (BI-RG-587; N11-cyclopropyl-5,11-dihydro-4-methyl-6H-dipyrido [3,2-b:2',3'-e] [1,4] diazepin-6-one), loviride (α -APA; (+)-2,6-dichloro-alpha-[(2-acetyl-5-methylphenyl)amino]benzamide), [or delavuridine] delavirdine (BHAP; 1-(5-methanesulphonamido)-1H-indol-2-yl-carbonyl)-4-[3-(isopropylamino)-2-pyridinyl] piperazine); phosphonoformic acid; 1,4-dihydro-2H-3,1-benzoxazin-2-ones NNRTIs, [such as] (-)-6-chloro-4-cyclopropylethynyl-4-trifluoromethyl-1,4-dihydro-2H-3,1-benzoxazin-2-one (L-743,726 or DMP-266); [or] quinoxaline NNRTIs, [such as] or isopropyl (2S)-7-fluoro-3,4-dihydro-2-ethyl-3-oxo-1(2H)-quinoxalinecarboxylate (HBY1293), wherein said additional agent is administered to said patient as either a separate dosage form or as a single dosage form together with said compound.

27. (Amended) The method according to claim 26, comprising the additional step of administering to said patient an additional therapeutic agent selected from (1 alpha, 2 beta, 3 alpha)-9-[2,3-bis(hydroxymethyl)cyclobutyl]guanine [(-)BHCG, SQ-34514]; oxetanocin-G

(3,4-bis-(hydroxymethyl)-2-oxetanosyl]guanine); acyclic nucleosides, [such as] acyclovir (9-[(2-hydroxyethoxy)methyl] guanine), valaciclovir (L-valine 2-(guanin-9-ylmethoxy)ethyl ester), famciclovir (diacetyl-6-deoxy-9-(4-hydroxy-3-hydroxymethyl-but-1-yl)guanine), ganciclovir (9-[[2-hydroxy-1-(hydroxymethyl)ethoxy]methyl] guanine), [or] penciclovir (9-(4-hydroxy-3-hydroxymethyl-but-1-yl) guanine); acyclic nucleoside phosphonates, [such as] (S)-1-(3-hydroxy-2-phosphonyl-methoxypropyl)cytosine (HPMPC); ribonucleotide reductase inhibitors, [such as] 2-acetylpyridine 5-[(2-chloroanilino)thiocarbonyl] thiocarbonohydrazone, 3'-azido-3'-deoxythymidine; other 2',3'-dideoxynucleosides [such as] 2',3'-dideoxycytidine, 2',3'-dideoxyadenosine, 2',3'-dideoxyinosine, [or] 2',3'-didehydrothymidine; other aspartyl protease inhibitors, [such as] indinavir (4-hydroxy-N-(2-hydroxy-2,3-dihydro-1H-1-indanyl)-N'-(1,1-dimethylethyl)-2-phenylmethyl-5-[4-(3-pyridylmethyl)-1-piperziny]hexanediamide), ritonavir (2,4,7,12 -tetraazatridecan-13-oic acid, 10-hydroxy-2-methyl-5-(1-methylethyl)-1-[2-(1-methylethyl)-4-thiazolyl]-3,6-dioxo-8,11-bis(phenylmethyl)-, 5-thiazolylmethyl ester, [5S-(5R*,8R*10R*,11R*)]), nelfinavir (3S-(3R*,4aR*,8aR*,2'S*,3'S*)]-2-[2'hydroxy-3'-phenylthiomethyl-4'-aza-5'-oxo-5'-(2"-methyl-3"-hydroxyphenyl)-pentyl]-3-(N-(tert-butyl)-carboxy-amide)-decahydroisoquinoline-methanesulfonic acid), [or] [3S-[3R*(1R*, 2S*)]]-[3[[4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-tetrahydro-3-furanyl ester (amprenavir); oxathiolane nucleoside analogues, [such as] (-)-cis-1-(2-hydroxymethyl)-1,3-oxathiolane 5-yl)-cytosine (lamivudine), [or] cis-1-(2-(hydroxymethyl)-1,3-oxathiolan-5-yl)-5-fluorocytosine (FTC); 3'-deoxy-3'-fluorothymidine; 5-chloro-2',3'-dideoxy-3'-fluorouridine;

(-)-cis-4-[2-amino-6-(cyclopropylamino)-9H-purin-9-yl]-2-cyclopentene-1-methanol; ribavirin; 9-[4-hydroxy-2-(hydroxymethyl)but-1-yl]-guanine (H2G); tat inhibitors, [such as] 7-chloro-5-(2-pyrryl)-3H-1,4-benzodiazepin-2-(H)one (Ro5-3335), [or] 7-chloro-1,3-dihydro-5-(1H-pyrrol-2-yl)-3H-1,4-benzodiazepin-2-amine (Ro24-7429); interferons, [such as] α -interferon; renal excretion inhibitors, [such as] probenecid; nucleoside transport inhibitors, [such as] dipyridamole; pentoxifylline; N-acetylcysteine (NAC); Procysteine; α -trichosanthin; phosphonoformic acid; immunomodulators, [such as] interleukin II or thymosin; granulocyte macrophage colony stimulating factors; erythropoietin; soluble CD₄ and genetically engineered derivatives thereof; non-nucleoside reverse transcriptase inhibitors (NNRTIs), [such as] nevirapine (BI-RG-587; N11-cyclopropyl-5,11-dihydro-4-methyl-6H-dipyrido [3,2-b:2',3'-e] [1,4] diazepin-6-one), loviride (α -APA; (+-)-2,6-dichloro-alpha-[(2-acetyl-5-methylphenyl)amino]benzamide) or [delavuridine] delavirdine (BHAP; 1-(5-methanesulphonamido)-1H-indol-2-yl-carbonyl)-4-[3-(isopropylamino)-2-pyridinyl] piperazine); phosphonoformic acid; 1,4-dihydro-2H-3,1-benzoxazin-2-ones NNRTIs, [such as] (-)-6-chloro-4-cyclopropylethynyl-4-trifluoromethyl-1,4-dihydro-2H-3,1-benzoxazin-2-one (L-743,726 or DMP-266); [or] quinoxaline NNRTIs, [such as] or isopropyl (2S)-7-fluoro-3,4-dihydro-2-ethyl-3-oxo-1(2H)-quinoxalinecarboxylate (HBY1293), wherein said additional agent is administered to said patient as either a separate dosage form or as a single dosage form together with said compound.

28. (Amended) The composition according to claim 21, wherein said acyclic nucleosides are acyclovir

(9-[(2-hydroxyethoxy)methyl] guanine), valaciclovir (L-valine 2-(guanin-9-ylmethoxy)ethyl ester), famciclovir (diacetyl-6-deoxy-9-(4-hydroxy-3-hydroxymethyl-but-1-yl)guanine), ganciclovir (9-[[2-hydroxy-1-(hydroxymethyl)ethoxy] methyl] guanine) or penciclovir (9-(4-hydroxy-3-hydroxymethyl-but-1-yl) guanine); said acyclic nucleoside phosphonates are (S)-1-(3-hydroxy-2-phosphonyl-methoxypropyl)cytosine (HPMPC); said ribonucleotide reductase inhibitors are 2-acetylpyridine 5-[(2-chloroanilino)thiocarbonyl] thiocarbonohydrazone, or 3'-azido-3'-deoxythymidine; said other 2',3'-dideoxynucleosides are 2',3'-dideoxycytidine, 2',3'-dideoxyadenosine, 2',3'-dideoxyinosine, or 2',3'-didehydrothymidine; said other aspartyl protease inhibitors are indinavir (4-hydroxy-N-(2-hydroxy-2,3-dihydro-1H-1-indanyl)-N'-(1,1-dimethylethyl)-2-phenylmethyl-5-[4-(3-pyridylmethyl)-1-piperzinyllhexanediarnide), ritonavir (2,4,7,12-tetraazatridecan-13-oic acid, 10-hydroxy-2-methyl-5-(1-methylethyl)-1-[2-(1-methylethyl)-4-thiazolyl]-3,6-dioxo-8,11-bis(phenylmethyl)-,5-thiazolylmethyl ester, [5S-(5R*,8R*10R*,11R*)], nelfinavir (3S-(3R*,4aR*,8aR*,2'S*,3'S*))]-2-[2'hydroxy-3'-phenylthiomethyl-4'-aza-5'-oxo-5'-(2"-methyl-3"-hydroxyphenyl)-pentyl]-3-(N-(tert-butyl)-carboxy-amide)-decahydroisoquinoline-methanesulfonic acid), or [3S-[3R*(1R*, 2S*)]]-[3[[4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-tetrahydro-3-furanyl ester (amprenavir); said oxathiolane nucleoside analogues are (-)-cis-1-(2-hydroxymethyl)-1,3-oxathiolane 5-yl)-cytosine (lamivudine) or cis-1-(2-(hydroxymethyl)-1,3-oxathiolan-5-yl)-5-fluorocytosine (FTC); said tat inhibitors are 7-chloro-5-(2-pyrrolyl)-3H-1,4-benzodiazepin-2-(H)one (Ro5-3335) or 7-chloro-1,3-dihydro-5-(1H-pyrrol-2yl)-3H-1,4-benzodiazepin-2-amine

(Ro24-7429); said interferons are α -interferon; said renal excretion inhibitors are probenecid; said nucleoside transport inhibitors are dipyridamole; said immunomodulators are interleukin II or thymosin; said non-nucleoside reverse transcriptase inhibitors (NNRTIs) are nevirapine (BI-RG-587; N11-cyclopropyl-5,11-dihydro-4-methyl-6H-dipyrido [3,2-b:2',3'-e] [1,4] diazepin-6-one), loviride (α -APA; (+-)-2,6-dichloro-alpha-[(2-acetyl-5-methylphenyl)amino]benzamide), [or delavuridine] delavirdine (BHAP; 1-(5-methanesulphonamido)-1H-indol-2-yl-carbonyl)-4-[3-(isopropylamino)-2-pyridinyl] piperazine); said 1,4-dihydro-2H-3,1-benzoxazin-2-ones NNRTIs are (-)-6-chloro-4-cyclopropylethynyl-4-trifluoromethyl-1,4-dihydro-2H-3,1-benzoxazin-2-one (L-743,726 or DMP-266); or said quinoxaline NNRTIs are isopropyl (2S)-7-fluoro-3,4-dihydro-2-ethyl-3-oxo-1(2H)-quinoxalinecarboxylate (HBY1293).